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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,436	07/18/2003	Ching-Cherng Lee	DCS-9158	3543

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DADE BEHRING INC.
LEGAL DEPARTMENT
1717 DEERFIELD ROAD
DEERFIELD, IL 60015

EXAMINER

HANDY, DWAYNE K

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,436

Applicant(s)

LEE ET AL.

Examiner

Dwayne K Handy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/18/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claim 3 is objected to because of the following informalities: In claim 3, applicant has referred to the top and bottom "sections". Applicant had previously referred to the top and bottom "portions" in claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Baldszun et al. (4,560,269). Baldszun teaches a cell for mixing and optical examination of liquids. The device is best shown in Figures 3, 5, 6, 9 and 10. The device is comprised of a pair of opposing walls (5,6 and 7,8), a closed bottom portion, an open top portion, and a curved surface (18, 19, 20, 21) at the intersections of the walls. The device has a substantially hemicylindrical bottom that is curved and tub-like. At the transition area that forms the bottom area, the inwardly curved surface of Baldszun actually becomes the bottom of the container. The Examiner considers this to meet applicant's limitation of a variable blend radius in the curved wall section since the radius of the inwardly curved surface of Baldszun basically tapers into the wall at the bottom section where the tub-like surface is located.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Demers et al. (5,840,256). Demers teaches a reaction plate having a plurality of uniformly sized reaction cells. Figure 3 shows a generally rectangular reaction cell (101B) comprised of a pair of mutually opposing walls, a closed bottom portion, an open top portion, and a curved surface at the intersection of the walls.

Inventorship

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldszun et al. (4,560,269) in view of Tanner et al. (6,767,607). Baldszun teaches every element of claim 5 except for optical windows having an optical thickness equal to about one wave. Tanner teaches a well plate with transparent bottoms for use in optical assays. The transparent bottom (26) is formed from glass, silica, mica, etc. and is preferably a glass of high optical quality and flatness. The preferred flatness of the bottom surface is in the range of 0-10 microns. This is approximately one wave since one wave is equal to 632nm. It would have been obvious to one of ordinary skill in the art to combine the flat surface features of Tanner with the device of Baldszun. Tanner teaches that flatness is important when viewing the contents of the well (column 4, lines 18-43). It would have been obvious, then, to make the surface of the optical examination element of Baldszun as flat as the bottom surface of Tanner to provide a smooth surface that will not interfere with the examination.

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8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldszun et al. (4,560,269) in view of Oldenburg et al. (6,027,695). Baldszun teaches every element of claim 6 except for wall portions that form a downwardly sloped inward chamber at about a 15 degree angle from the wall plane. Oldenburg shows a well plate apparatus for holding small volumes of liquid. The wells have side walls that slope inward from the plane of the wall edge at an angle (A) of 30 degrees or less (Figure 5, column 6, lines 3-14). The well walls are sloped to insure that light incident upon the well is absorbed by the plate or reflected away from a detection device. It would have been obvious to combine the sloped walls from Oldenburg with the cuvette of Baldszun. One would add the sloped walls to obtain the optical properties they provide as taught by Oldenburg.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldszun et al. (4,560,269) in view of Farina et al. (6,752,967). Baldszun teaches every element of claim 7 except for a bump on a ledge extending from the sidewalls. Farina shows a cuvette array having a plurality of containers (128) connected to a plate (116). The plate (116) contains a series of transfer hubs (134) that extend above and below the extended surface of the plate (column 8, lines 7-31). The transfer hubs are used in conjunction with automated equipment to align the plate (and therefore the containers) with various elements of the workstation. The Examiner considers the hub feature (134) to meet the limitation of a bump. It would have been obvious to one of ordinary skill in the art to combine the feature from Farina with the device of Baldszun. One would

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provide the hub element in order to provide alignment features that can be used by automated handling devices.

Allowable Subject Matter

10. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bergmann (3,627,432), Deutsch (4,762,798), Froehlich et al. (5,098,661), Jenkins et al. (4,847,050) and Kloth (6,108,080) show further examples of cuvettes.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH
January 26, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1700